



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,119	10/27/2003	Paul Rosenberg	15436.250.26.1	2505
22913	7590	03/18/2005	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			STAHL, MICHAEL J	
			ART UNIT	PAPER NUMBER
			2874	
DATE MAILED: 03/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

HA

## Office Action Summary

Application No.

10/694,119

Applicant(s)

ROSENBERG ET AL.

Examiner

Mike Stahl

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 12 and 16-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/29/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 2874

### ***Drawings***

Figure 1 is objected to because it appears that “124” is misplaced. It should point to the portion of the bore between “122” and “126” on the right-hand side of the housing. See [019].

### ***Claim Objections***

Claim 12 is objected to because it refers to “said bore of said split sleeve”. Base claim 7 does not establish that the split sleeve itself has a bore. It is also noted that claim 12 appears to be redundant since if the core member is inserted into the split sleeve as recited by claim 7, then it inherently extends partially along the length of the split sleeve.

Claim 16 is objected to because it ends with a semicolon (;). Each claim should end with a period (MPEP 608.01(m)).

Claims 17, 21, and 28 are objected to because their respective preambles refer to “said step for inserting”, but base claim 16 refers to two distinct steps for inserting (a step for inserting a core member, and a step for inserting said sleeve assembly). Claims 17, 21, and 28 should be revised to clarify which step for inserting from claim 16 is being further limited.

Claims 17-28 are objected to by dependence from claim 16 which was objected to above.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2874

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 11-16, 25, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Wisecarver (US 2004/037509).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claim 1: Wisecarver discloses a ferrule connector assembly (fig. 1) comprising: a housing **130** having a first end **110**, a second end **120**, and a bore **140** extending from the first end to the second end, the first end **110** being adapted to receive a ferrule containing an optical fiber (see [0014]); a split sleeve **180** at least partially disposed within bore **140** at the second end **120** and secured within the housing through a press fit (see [0017]); and a core member **190** at least partially disposed within the split sleeve **180**, the core member having a hole **220** optically aligned with the optical fiber.

Claim 2: The housing further comprises at least one support structure **170** being adapted to hold the split sleeve in optical alignment with the fiber.

Claim 3: The housing further comprises an attachment structure disposed at the first end.

Claim 4: The housing is radially symmetrical.

Claim 5: The core member **190** is formed to a precise dimension which ensures alignment of the hole with the fiber ([0018]).

Claim 6: The core member **190** is formed to a precise dimension. The recitation of a center-less grinding process is not being given patentable weight since it does not result in a structural difference (MPEP 2113, citing *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)).

Claim 7: The Wisecarver device described above meets the claimed limitations, noting that with the new designations in this claim the first end in Wisecarver is now **120** and the second end is now **110**. The core member is inserted into the split sleeve before the split sleeve is inserted into the first end (claim 33), and that the split sleeve is held in place without adhesives.

Claim 11: The housing includes at least one attaching structure (the flange in fig. 1) that enables the housing to attach to an optical component.

Claim 12: The core member **190** is disposed within the split sleeve **180** and extends partially along a length thereof.

Claim 13: The split sleeve **180** includes a distal end, a proximal end, and a channel extending from the distal end to the proximal end.

Claim 14: The bore **140** includes first and second portions, the first portion (near shoulder **144**) having a diameter larger than the second portion (near shoulder **142**).

Claim 15: The bore includes a tapered portion cooperating with the second portion.

Claim 16: The method for assembling the Wisecarver device includes a step for inserting a core member **190** into a split sleeve **180** to form a sleeve assembly and a step for inserting the sleeve assembly into a housing **130**.

Claim 25: The method further includes forming the core member **190** with a precise dimension.

Claim 28: The step for inserting the sleeve assembly includes press fitting it into the housing ([0017], claim 37).

Claims 7-16 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Knodell et al. (US 5971626).

Claim 7: Knodell discloses a ferrule connector assembly (fig. 3-6) comprising: a split sleeve **66** (col. 4 lns. 17-19) adapted to receive a core member **120** having a longitudinal hole **138** therethrough; and a housing **62** having a bore **79** therethrough, a first end **86** adapted to receive the split sleeve and the core member and a second end **84** adapted to receive a ferrule; wherein the core member **120** is inserted into the split sleeve **66** and the split sleeve is then inserted into the first end **86** of the housing, the split sleeve being held in place without adhesive (col. 4 ln. 65 – col. 5 ln. 4).

Claims 8 and 9: The housing includes at least one securing member **82** cooperating with the bore and extending toward a central axis of the bore to engage with the split sleeve **66** (fig. 4). The structure **82** extends generally away from an inner surface **80** of the bore.

Claim 10: The securing structure **82** has sufficient resiliency to apply force against split sleeve **62** which prevents removal of the sleeve in a direction toward end **84**.

Art Unit: 2874

Claim 11: The housing includes at least one attaching structure **102** and **104** that enables the housing to attach to an optical component (col. 4 lns. 20-24).

Claim 12: The core member **120** is disposed within the split sleeve **66** and extends partially along a length thereof.

Claim 13: The split sleeve **66** includes a distal end, a proximal end, and a channel extending from the distal end to the proximal end.

Claim 14: The bore **79** includes first and second portions, the first portion (near end **86**) having a diameter larger than the second portion (the portion just to the right of **90** and generally between **102** and **100** in fig. 4).

Claim 15: The bore includes a tapered portion cooperating with the second portion.

Claim 16: The method for assembling the Wisecarver device includes a step for inserting a core member **120** into a split sleeve **66** to form a sleeve assembly and a step for inserting the sleeve assembly into a housing **62** (col. 4 ln. 65 – col. 5 ln. 4).

Claim 25: The method further includes forming the core member **120** with a precise dimension.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2874

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knodell et al. (cited above) in view of Weiss et al. (US 5613899).

Claim 26: Knodell does not specify how the core member **120** (which is a ferrule; see also **144** of fig. 6) is made. It is well known in the art that ferrules in fiber-to-fiber connector applications need to have a high degree of concentricity in order to ensure proper alignment of the fiber cores (see e.g. Weiss col. 1 lns. 20-23). Weiss teaches that a centerless grinding process is capable of achieving a high concentricity (col. 2 lns. 7-11). Accordingly, it would have been obvious to a skilled person fabricating the Knodell apparatus to have used ferrules which were made by a centerless grinding process such as the one taught by Weiss, in order to maintain an optimal alignment of the mated ferrules.

Claim 27: In the modification proposed above, the tolerance is less than one micrometer (Weiss col. 1 lns. 20-23, col. 2 lns. 10-14).



*Allowable Subject Matter*

Claims 17-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and if rewritten to avoid the above objection to claim 16. Neither reference applied above to base claim 16 discloses or suggests the recited steps of claims 17 and 21 involving the use of a press guide assembly. Claims 18-20 and 22-24 depend from claims 17 and 21 respectively.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Stahl at 571-272-2360. Inquiries of a general or clerical nature (e.g., a request for a missing form or paper, etc.) should be directed to the technical support staff supervisor at 571-272-1626. Official communications which are eligible for submission by facsimile and which pertain to this application may be faxed to 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Stahl *MJS*  
Patent Examiner  
Art Unit 2874  
March 4, 2005

  
Rodney Bovernick  
Supervisory Patent Examiner  
Technology Center 2800